

Great Lakes Steamship Repower Incentive Program

The U.S. Environmental Protection Agency (EPA) is publishing a Direct Final Rule to add a provision to our marine diesel engine program to encourage owners of Great Lakes steamships to repower those steamships with cleaner Tier 2 or later marine diesel engines.

Overview

The 13 U.S. steamships that operate on the Great Lakes use propulsion technology that was developed before the advent of modern diesel engines. Due to safety and other considerations, these steamships are exempt from the fuel sulfur requirements that will begin to apply on the Great Lakes in August, 2012.¹

Steam power plants can use 30 to 50 percent more fuel than comparable diesel engines, with resulting high particulate matter (PM) and sulfur oxides (SO_x) emissions. However, the high cost of repower projects and the requirement to use lower sulfur fuel in the replacement diesel engines can discourage owners from replacing their steam engines.

To encourage voluntary steamship repowers, we are adding a new incentive provision to our marine diesel engine program. This provision will provide an automatic, limited fuel waiver for qualifying repowered Great Lakes steamships that will allow the owner to use higher sulfur residual fuel in the repowered diesel engine for a specified period of time.

Voluntary replacement of steam power plants with modern fuel-efficient marine diesel engines will result in significant reductions. During the period of the waiver SO_x emissions from a typical steamship would be reduced by 34 percent. In the long term, after the waiver expires and the ship must use low sulfur fuel, SO_x and PM emissions would be reduced by 97 percent and 84 percent, respectively, when compared to the steam power plant. These emission reductions will provide human health and welfare benefits for people who live in the Great Lakes region.

¹ See our final Category 3 marine diesel rule, 75 FR 22896, April 30, 2010. This document is available at our website, www.epa.gov/otaq/oceanvessels.htm.

The automatic Great Lakes steamship repower fuel waiver is valid through December 31, 2025; after that date, repowered steamships will be required to use fuel that complies with the sulfur limits that apply on the Great Lakes, or use an exhaust gas cleaning system (scrubber) or other technology or procedure that achieves equivalent sulfur emission limits.

To qualify, the steamship must operate exclusively on the Great Lakes and must have been in service on October 30, 2009, where “in service” means operating as a steamship, but is not limited to actually performing that service on that day. The replacement engine must be a Tier 2 or cleaner marine diesel engine as specified in 40 CFR 1042.104. Reporting and other requirements to take advantage of the waiver are set out in the rulemaking package.

Public Participation Opportunities

This rule is being released as a direct final rule. However, comments can be submitted under a parallel Notice of Proposed Rulemaking (NPRM). Comments will be accepted for 30 days beginning when the NPRM is published in the Federal Register. All comments should be identified by Docket ID No. EPA-HQ-OAR-2011-0928 and submitted by one of the following methods:

Internet: www.regulations.gov

E-mail: A-and-R-docket@epa.gov

Mail:

Environmental Protection Agency
Air and Radiation Docket and Information Center (6102T)
1200 Pennsylvania Avenue NW
Washington, DC 20460

Hand Delivery:

EPA West Building
EPA Docket Center (Room 3334)
1301 Constitution Avenue NW
Washington, DC

For More Information

You can access the rule and related documents on EPA’s Office of Transportation and Air Quality (OTAQ) Web site at:

www.epa.gov/otaq/oceanvessels.htm

For more information on this Direct Final Rule, please contact the Assessment and Standards Division at:

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